

CLAIMS:

- 5 1. An aqueous hair dye composition comprising a mixture of:
 - (A) a non-nitrogenous chelating agent selected from the group consisting of polyphosphates, phosphonates, hydroxycarboxylates, polyacrylates, zeolites and mixtures thereof;
 - (B) an oxidative dye primary intermediate; and
 - (C) an oxidative dye coupler.
- 10 2. A composition in accordance with claim 1, wherein the non-nitrogenous chelating agent is a chelating agent that lacks an aminocarboxylic acid group or an aminophosphonic acid group.
- 15 3. A composition in accordance with claim 2, wherein the chelating agent is a polyphosphate.
- 20 4. A composition in accordance with claim 2, wherein the chelating agent is a phosphonate.
- 25 5. A composition in accordance with claim 2, wherein the chelating agent is a hydroxycarboxylate.
- 30 6. A composition in accordance with claim 2, wherein the chelating agent is a polyacrylate.

7. A composition in accordance with claim 2, wherein the chelating agent is a zeolite.

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8. A composition in accordance with claim 1, wherein the non-nitrogenous chelating agent is present at from about 0.1% to about 10%.

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9. A composition in accordance with claim 7, which further comprises from about 0.01% to about 10% of amino containing chelating agents.

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10. A hair dye composition according to claim 1 comprising:

- (A) about 0.1 to about 3% of a non-amino chelating agent selected from the group consisting of polyphosphates, phosphonates, hydroxycarboxylates, polyacrylates, zeolites and mixtures thereof;
- (B) about 0.1 to about 5% oxidative dye primary intermediate; and
- (C) about 0.1 to about 5% oxidative dye coupler; and
- (D) water

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11. A composition according to claim 1 comprising a mixture of:

- (A) about 0.01 to about 3% of a non-nitrogenous chelating agent selected from the group consisting of polyphosphates, phosphonates, hydroxycarboxylates, polyacrylates, zeolites and mixtures thereof;
- (B) about 0.01 to about 5% oxidative dye primary intermediate; and
- (C) about 0.01 to about 5% oxidative dye coupler; and
- (D) water.

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12. A hair dye composition according to claim 1 which further comprises at least a solvent selected from the group consisting of propylene glycol, isopropylene glycol and isopropanol.
13. A hair dye composition according to claim 1 which further comprises a conditioner.
14. A hair dye composition according to claim 1 which further comprises a humectant.
15. A hair dye composition according to claim 1 wherein said oxidative dye primary intermediate is selected from the group consisting of phenol aniline derivatives, pyridine derivatives, pyrimidine derivatives and mixtures thereof.
16. A hair dye composition according to claim 1 wherein said oxidative dye couplers is selected from the group consisting of phenol and aniline, pyridine, indole, indoline, pyrazone derivatives and mixtures thereof.
17. A method for coloring hair which comprises contacting said hair with a composition according to claim 1.